Age-related Differences in the Relations between Individualized HRM and Organizational Performance: A Large-Scale Employer Survey

ABSTRACT

The current study investigated the relations of individualized HRM with multiple organizational performance indicators. Based on signaling theory and social exchange theory, it was predicted that the availability and use of different individualized HRM practices in organizations would be positively related to performance growth and negatively related to employee absence and employee turnover. Moreover, we investigated the moderating role of employee age in these relationships. Based on lifespan theory of aging, we expected that individualized work schedule practices would be more strongly related to outcomes for older workers while individualized development and financial pay practices would be more strongly related for younger workers. A large-scale representative study among 4,591 organizations in the Netherlands showed support for the relationships of individualized HR practices with organizational performance. Moreover, employee age moderated the relationships between the use of individualized practices and sickness absence and turnover, such that organizations with a high percentage of older workers benefited from work schedule practices, and organizations with high percentage of younger workers benefited from development practices.

Keywords: Individualized HRM Practices, organizational performance, employee turnover, sickness absence, older workers.

Running Head: Individualized HRM and Organizational Performance

As employees increasingly have become responsible for their own careers (Greenhaus, Callanan, & Godshalk, 2010), a growing number of employees have started to negotiate their own work arrangements with their employers (Rousseau, 2005). Accordingly, in recent years academic interest has grown rapidly in how employees proactively shape their careers, and negotiate individual agreements with their employer (Bal, De Jong, Jansen, & Bakker, 2012; Grant & Parker, 2009; Rousseau, 2005). Studies have shown that individuals who proactively negotiate individual agreements with their employer become more highly motivated, committed and performing, as research on idiosyncratic deals has shown (e.g., Anand, Vidyarthi, Liden, & Rousseau, 2010; Hornung, Glaser, & Rousseau, 2008; Rosen, Slater, Chang & Johnson, 2011; Rousseau, Ho, & Greenberg, 2006). However, research from the organizational perspective on this increasing individualization of work arrangements is lacking (Taskin & Devos, 2005). This is surprising, given the strong increase in interest on outcomes of individual employee negotiation.

At the same time, research on effectiveness of human resource management (HRM) has focused primarily on the universalistic outcomes of high-performance HRM (Boxall & Macky, 2009; Delery & Doty, 1996), based on the assumption that HR practices have a universal effect on motivation and performance among all employees. Much less attention, however, has been devoted to individualization of HRM, and in particular the increasing tendency among employers to implement an individualized approach to offering HRM to employees (see Bal, Kooij, & De Jong, 2013; De Leede et al., 2007; Kooij et al., 2013). More specifically, instead of a standardized approach in which all employees are treated similarly, individualized HRM refers to the extent that managers and employees are empowered to negotiate arrangements that fit the specific needs and preferences of the business unit and the individual employee (De Leede, Looise & Van Riemsdijk, 2004). Individualized HRM practices are customized work arrangements or “I-deals” on, for instance, working hours,

rewards, training and career development (Rousseau, 2005; Benko & Weisberg, 2007; Hornung, Rousseau, & Glaser, 2009).

It is currently unknown whether this individualization of HRM contributes to the bottom-line of organizations, or whether it actually improves organizational functioning. Hornung and colleagues (2009) showed that managers who negotiated developmental opportunities with their employees also held higher performance standards for these employees, and perceived their employees as more highly motivated in their work. However, it is unknown whether the use of individualization of HRM actually leads to more favorable *organizational* outcomes, such as higher performance and lower employee absence and turnover.

Moreover, studies on the effects of individualization on the micro, or employee, level have shown that relations with outcomes are inconsistent and differ greatly among studies (Bal et al., 2012; Hornung et al., 2008; Hornung, Rousseau, Glaser, Angerer, & Weigl, 2010; Rosen et al., 2011). It has been argued that individualization is only beneficial when it is in line with other aspects in the organization (De Leede et al., 2007; Delery & Doty, 1996). Especially the content of the agreement may be important, as well as the extent to which it suits the needs of employees. Hence, the utility or value of individualization is important in determining the relations with outcomes (Blau, 1964; Rosen et al., 2013). Thus, another prominent question regarding individualization is whether the potential positive effects of individualization apply to specific groups of employees (Bal et al., 2012; Rousseau, 2005).

The objective of this study is to test the effectiveness of individualization for older workers (Bal et al., 2012; Bal, Kooij, & De Jong, 2013; Kooij et al., 2013). Since workforces are aging throughout the world (Wang & Shultz, 2010), the need for retention of older workers in organizations has become a prominent area of research (e.g., Armstrong-Stassen & Ursel, 2009; Shultz & Wang, 2011). However, at the same time, it has become much more

difficult to retain older workers and with them their expertise and knowledge, because many older workers drop out of the workforce before their retirement age (European Commission, 2010; Wang & Shultz, 2010). One way to facilitate older workers to remain longer in the workforce, and hence to be able to stay active in their organizations, has been individualization of work arrangements. For instance, a study of Bal and colleagues (2012) has shown that individual agreements can motivate employees to work beyond retirement, and hence can be implemented by organizations to specifically increase motivation of their older workers.

This study, therefore, contributes to the debate in HRM-research regarding the role of high performance HRM and the contingency approach to HRM (Delery & Doty, 1996; Kaufman & Miller, 2011; Purcell, 1999). The high performance approach to HRM (e.g., Kehoe & Wright, 2013) postulates that the more high performance HRM practices are available in organizations, the higher firm performance will be. However, as Kaufman and Miller (2011) have argued, this statement may be oversimplified and misspecified; the relations of HRM with organizational performance are dependent upon the organizational context (Delery & Doty, 1996). The context, and in particular the composition of the employee population within the organization, determines the extent to which HRM, and specifically individualized HRM, is effective for organizations. Hence, the aim of the current paper is twofold; first, we investigate whether availability and actual use of individualization of HRM contributes to organizational performance. In line with previous research, organizational performance will be operationalized as three distinct outcomes: operational performance growth, sickness absence rates and voluntary employee turnover rates (Peretz & Fried, 2011).

Second, the study aims to unravel the conditions under which the effects of individualization on organizational performance are the strongest through looking at the

moderating role of employee age in the organization. We investigate whether the relations of individualized HRM with organizational performance differ among organizations depending on the percentage of older workers in the organization, based on the notion that older workers have different needs from younger workers (Bal et al., 2012; Kooij et al., 2013).

This study contributes to research on individualization of work arrangements in the following ways; the study is the first to look at the effects of individualization on establishment-level outcomes, rather than on individual-level outcomes (Hornung et al., 2008). Showing that individualization contributes to the bottom-line not only furthers our understanding of individualized HRM, but it also legitimizes individualization as an organizational strategy which can be used to enhance organizational functioning. Moreover, the study contributes by investigating the conditions under which individualization is most effective. We look at the role of the age composition within the organization, and through this we open up new pathways for research on HRM, which until now has focused almost exclusively on universal effects on outcomes, whilst neglecting the benefits of taking an individualized approach towards managing employees. Finally, this study contributes to previous research on individualization through the investigation of a large-scale employer sample, and thereby obtaining a comprehensive perspective on how individualized HRM influences organizational outcomes through studying different organizations in different sectors.

Theory and Hypotheses

Individualization of HRM becomes more and more the standard in organizations due to globalization, the information economy, and democratization of the workplace (Taskin & Devos, 2005). Employees nowadays proactively look for opportunities to negotiate individual agreements with their employers (Grant & Parker, 2009; Rousseau et al., 2006), and at the same time, due to the perceptions of the current global crisis as a moral crisis (e.g., Santoro &

Strauss, 2012; Welten, 2012) organizations increasingly look for a more human approach to HRM, whereby the individual needs of employees are taken into account. Consequently, organizations increasingly provide employees with the individual opportunity to negotiate agreements about work arrangements. This differs from the traditional HRM approach, which fundament is based on equal treatment of all employees (Boxall & Macky, 2009). Individualized HRM is different from the traditional HRM approach in that employees themselves can negotiate with their employer about their development opportunities, work schedules and remuneration instead of choosing from what is available to all employees (Paauwe, 2009). Hence, we define individualized HRM as an HR system where managers have the opportunity and actually use the opportunity to individually negotiate agreements about work arrangements with individual employees. In the current study, we approach individualized HRM as HR programs that are implemented as HR practices in an organization (Arthur & Boyles, 2007). Hence, individualized HRM refers to extent to which organizations provide the leeway to make individual agreements, as well as the actual use by managers to make those arrangements with employees. The focus of the current study is on the establishment-level, and hence individualized HRM within establishments of organizations.

Individualized HRM is similar, yet different, from I-deals, or idiosyncratic deals employees bargain with their employers (Rousseau, 2005; Rousseau et al., 2006). I-deals are negotiations of individual employees with their organizations, and primarily initiated by the employee. Similar to individualized HRM, I-deals are negotiated individually. However, in contrast to I-deals, individualized HRM refers to a formalized approach by the organization, as indicated by formal HRM practices, to customize work arrangements. Hence, individualized HRM makes individualization of work arrangements the standard for all employees. Consequently, employees have an equal right to ask for individualized treatment

and thus fairness of deal making can be enhanced (Greenberg, Roberge, Ho & Rousseau, 2004; Lai, Rousseau, & Chang, 2009).

Moreover, individualized HRM is different from flexible work arrangements (FWA; Baltes, Briggs, Huff, Wright, & Neuman, 1999; De Menezes & Kelliher, 2011). While FWAs refer primarily to flexibility in work schedules and arrangements that aim to reduce work-family conflict, they tend to be standardized for all employees, limiting the employee to individually negotiate work arrangements that best fit personal needs and abilities. Moreover, FWAs are targeted at one specific type of work arrangement, while individualized HRM encompasses agreements about development, work schedules, and financial arrangements.

We further distinguish availability and actual use of individualized HRM (Arthur & Boyles, 2007; Rousseau, 2005). In line with the strategic HR literature which distinguishes the intended HR practices which are available to line managers to deploy and the actual use of these practices (e.g., Arthur & Boyles, 2007; Casper & Harris, 2008; Wright & Nishii, 2007), we apply the same logic to individualized HRM: on the one hand, organizations provide the leeway for line managers to start negotiation when employees ask for individual agreements (i.e., availability of individualized HRM), and on the other hand, line managers actually use this leeway to negotiate agreements with their employees. Availability of individualized HR practices can be regarded as a deliberate organizational policy, while use of individualized HRM is dependent upon supervisors and managers actually negotiating individual arrangements with their employees. Both availability and actual use may influence positive outcomes, however, both via distinct theoretical processes.

First, the effects of *availability* of individualized HRM on organizational performance can be explained with signaling theory. Signaling theory (Casper & Harris, 2008; Rynes, Bretz, & Gerhart, 1991; Spence, 1973) proposes that individuals use cues or signals when they do not have perfect information. Since employees have incomplete information about the

organization's intentions, they use signals from the organization to draw conclusions about an organization's intentions, actions, and characteristics. As such, the availability of individualized HRM in the organization functions as 'signals' of the organization's intentions toward employees (e.g., Takeuchi, Chen, & Lepak, 2009). Employees thus perceive the availability to negotiate individual agreements as signals from the organization about its benevolent intentions to recognize their individual needs and work preferences that create a positive climate for employees (Bal et al., 2012; Rynes et al., 1991). Social exchange theory (Blau, 1964; Eisenberger, Huntington, Hutchison, & Sowa, 1986) proposes in turn that employees will reciprocate these good intentions through increased commitment to the organization, and consequently higher performance and retention (Hannah & Iverson, 2004; Shore & Shore, 1995).

Second, the effects of *use* of individualized HRM on organizational performance can be explained using the norm of reciprocity, which is related to social exchange theory (Blau, 1964; Gouldner, 1960). According to social exchange theory, when an employee and an employer commit to each other in an exchange relationship, reciprocal obligations between the two parties drive the behaviors of the two parties. Individualized HRM serves as a basis for reciprocity between the employee and the organization, because the mutual obligations that have been agreed upon strengthen the employment relationship. More specifically, the organization negotiates with the employee a certain arrangement, and in return, the employee becomes more attached to the organization (Hornung et al., 2008; Ng and Feldman, 2010) and contributes to a higher degree (Hornung et al., 2008). In line with the norm of reciprocity, employees reciprocate the organization's willingness to negotiate individual agreements with them through higher commitment and performance. Hence, the use of individualized HRM practices in organizations is expected to be positively related to organizational performance.

Previous research has provided some evidence for this notion; Hornung et al. (2009) showed in their study among managers that when employees were able to negotiate individual deals, their managers perceived them to be more highly motivated and performing. In a similar vein, Hornung et al. (2008, 2011) showed that employees who had negotiated individual agreements were more affectively committed and engaged in their work, and worked more overtime.

Individualized HRM practices may entail various types of agreements, but previous research has shown that the most prevalent agreements are aimed at development (i.e., training and career development), flexibility in work schedules (i.e., working hours), and financial agreements (i.e., salary; De Leede et al., 2004, 2007; Rosen et al., 2011). Hence, in this study we differentiate among development, work schedules and pay arrangements practices, and we expect that these three practices will be differentially related to types of organizational performance. Development practices motivate and reward high performance (Hornung et al., 2008, 2011). Through development, including training and special opportunities for skill development, employees may enhance their own performance. In line with the AMO-model (Appelbaum et al., 2000), development provides employees with the abilities and motivation to perform. Hence, development practices motivate employees to perform, but also to stay within the organization. In line with the norm of reciprocity, when employees receive development they become more committed to the organization, and hence, more likely to stay. Thus, we expect that development practices are related to organizational performance as well as turnover.

Individualized work schedule practices will enhance employee motivation in line with the work adjustment model; through negotiation of personalized work schedules, greater correspondence is achieved between the employees' abilities and the requirements of the job (Baltes et al., 1999; Carlson, Grzywacz, & Zivnuska, 2010). Through adaptation of the job

requirements towards individual abilities, employees are better able to fulfill their job role, and hence, work schedule practices facilitate employees to arrange their work more in line with their personal situation. Consequently, employees are better able to do their job without dropping out (e.g., through burnout), and hence work schedule practices are expected to contribute to lower employee sickness absence. Previous research has shown that flexible work arrangements tend to reduce absenteeism in organizations (De Menezes & Kelliher, 2011), and that they contribute to a better work-life balance (Hornung et al., 2009, 2011).

Finally, individualized pay practices reflect the economic conditions of a job (Rosen et al., 2011), and in their universal, concrete nature, signal to employees that the current organization values and wants to retain them. Pay practices also increase contract unreplicability (Ng & Feldman, 2008), since the financial benefits of a job can be easily compared with other jobs, and hence decrease the likelihood that employees will turnover. Thus, financial practices are expected to be related to lower employee turnover, since employers are likely to offer special compensation packages or incentives to their valued employees in order to retain them. In sum, both availability and use of individualized HRM in organization are expected to be positively related to types of organizational performance. More specifically, we expect development practices to be related to performance growth and employee turnover, work schedule practices to sickness absence, and pay practices to employee turnover. In line with the above, our first three hypotheses are:

> *Hypothesis 1: Availability and use of individualized development practices are positively related to (a) performance growth, and negatively related to (b) employee turnover.*
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> *Hypothesis 2: Availability and use of individualized work schedule practices are negatively related to sickness absence.*
>
> *Hypothesis 3: Availability and use of individualized pay practices are negatively related to employee turnover.*

Employee age and Effectiveness of Individualized HRM

We argue that the effectiveness of individualized HRM is dependent upon the context, and in particular the composition of the employee population in the organization (Bal et al., 2013; Kooij et al., 2013). A basic notion of social exchange theory is that the utility, or the value, employees attach to resources determines the likelihood of the expected effects on outcomes, such as performance, absence and turnover. Accordingly, previous studies have shown that individualized agreements are more likely to produce positive outcomes when they are in line with employee needs (Anand et al., 2010; Bal et al., 2012).

Accordingly, the relations of use of individualized HRM with organizational performance will depend upon the extent to which it fits the needs of older workers. We expect this to be the case for use of individualized HRM rather than availability, since the utility of individualized HRM is manifested particularly when workers have actually negotiated agreements with their organization (Rousseau, 2005). More specifically, we expect work schedule practices to be more strongly related to sickness absence among organizations with many older workers, while the relations between development and pay practices and performance growth and turnover respectively are stronger among organizations with many younger workers.

Research has shown that the more salient incentives become, the stronger one will react to receiving such an incentive (Anand et al., 2010; Bal, Jansen, Van der Velde, De Lange & Rousseau, 2010). Hence, when individualized HR practices fulfill the needs of employees, they are more likely to respond stronger to these practices. The lifespan Selection, Optimization, and Compensation (SOC-) Model of Baltes (1997, Baltes & Baltes, 1990) explains why older people become more interested in work schedule agreements and why younger workers are more interested in development and financial agreements. The SOC-model proposes that throughout life, people experience gains and losses in physical and mental capabilities, and they are in general focused on maximizing the benefits of these

changes while minimizing their losses (Kanfer & Ackerman, 2004). To minimize losses in outcomes due to the losses in abilities aging people experience, they select fewer goals so that they do not have to spread their diminished resources over too many goals and can thus remain healthy and productive contributors in the organization (Baltes & Baltes, 1990; Baltes, 1997). Moreover, when people become older, they will also have obligations in other domains, such as eldercare, through which their preference for adjusted work schedules increase (Zacher, Jimmieson, & Winter, 2012). Thus, the possibility for older workers to negotiate an individualized work schedule with their employer, and thus adaptation of the job requirements towards individual abilities, enables them to remain productive and prevents them from higher sickness absence.

In contrast, development and pay practices are more important among younger workers (Ebner, Freund, & Baltes, 2006; Freund, 2006). Because younger workers have a long and unknown future ahead of them, they focus primarily on preparing themselves for their future through growth and learning (Freund, 2006). Younger workers primarily tend to seek optimizing resources or maximization of economic gains and career development, enhancing their status and advancement within their organization and career (Maurer, Weiss, & Barbeite, 2003). Recent meta-analytic work has indeed shown that growth and extrinsic work motives are more important for younger workers than for older workers (Kooij, De Lange, Jansen, Kanfer, & Dikkers, 2011). Extending this logic, we propose that the use of development and pay agreements are more important for younger workers, and hence are more strongly related to performance growth and turnover among organizations with many younger workers. Based on the above, we propose the following hypotheses:

> *Hypothesis 4: employee age moderates the relationship between use of individualized development practices and (a) performance growth and (b) employee turnover, such that the relation is weaker for organizations with a high percentage of older workers.*
>
> *Hypothesis 5: employee age moderates the relationship between use of individualized work schedule practices and sickness absence, such that the relation is stronger for organizations with a high percentage of older workers.*

Hypothesis 6: employee age moderates the relationship between use of individualized pay practices and employee turnover, such that the relation is weaker for organizations with a high percentage of older workers.

Methods

Sample and Procedure

The *Netherlands Employers Work Survey (NEWS*; Oeij, De Vroome, Kraan, Van den Bossche, & Goudswaard, 2011*)* is a study of employment arrangements in organizations in the Netherlands and was carried out in 2010. NEWS is a representative survey among more than 5,000 profit as well as non-profit organizations counting two or more employees. The NEWS-survey governed by the Dutch Ministry of Social Affairs monitors national labor management policies and practices and consisted of questions about employment conditions, labor relations, social security, organizational policies and HR practices, and organizational performance. Because the current study was part of a larger study on employer policies and conditions, the survey included various other questions. Therefore, the likelihood of respondents being aware of the aims of the current study, to investigate whether individualized HRM contributes to performance, would be minimal. The sample selected was a stratified sample based on sector and organization size. Organizations were approached by mail and telephone to participate in the research at the establishment-level. This means that for larger organizations with multiple (regional) establishments, respondents were approached at a lower hierarchical level where they could more accurately judge the actual use of individualized HRM practices.

Respondents (company owners, management team members or HR-managers) were able to participate through filling out either a paper-and-pencil or a digital questionnaire. It was deemed appropriate to ask company owners or HR managers to act as organizational representatives and to fill out the survey, since they would be aware of the policies of their organization, as well as the extent to which individualized HRM practices would be actually used in their organization (Arthur & Boyles, 2007). If they would not be aware of the use of

individual agreements in their organization, it would be likely that the existence of these individual agreements were in fact cronyism or favoritism, rather than organizationally approved individualized HRM. The initial response was from 5,518 establishments (37% response rate). After deleting participants with missing responses, we obtained a final response of 4,591 organizations (31% response rate). 38% of the respondents were director or owner of the organization, 36% was the HR-manager, 14% the establishment manager, and 12% fulfilled another function in the organization. 71% of the organizations were profit firms, 22% non-profit, and 7% had both profit and non-profit activities.

Measures

Individualized HR practices were measured in line with previous research on HRM as well as I-deals (e.g., Casper & Harris, 2008; Hornung et al., 2008, 2009; Rousseau et al., 2009). **Availability of individualized HRM** was measured by asking respondents the extent to which in their organization different agreements could be made with individual employees. Responses could be provided on a 5-point Likert scale (1 = not available at all; 5 = available to a great extent). Availability was measured with one-item scales for development (development/education of employees), work schedules (working hours of employees), and pay arrangements (salary of employees). **Use of individualized HRM** was measured by asking respondents to indicate the extent to which in their organization supervisors actually negotiated individualized agreements with employees (1 = not at all; 5 = to a very great extent). Again, use of individualized HRM was measured for both development, work schedules and pay arrangements with same items as availability.

Organizational performance was measured using three indicators. **Performance growth** ($\alpha = .72$) was measured through three items referring to performance growth during the last two years. We chose for performance growth, since many organizations from various sectors took part in the study, and objective indicators such as sales rates, profit, ROA or ROI

are not applicable to every organization (such as non-profit organizations; Peretz & Fried, 2011). Ratings of organizational performance growth have been estimated as valid and reliable indicators of organizational performance (Gong, Law, Chang, & Xin, 2009; Ngo, Foley, & Loi, 2009). The items were: "Over the last two years, the labor productivity in our organization has …", "The quality of our products and/or services has…", and "the satisfaction of the customers of our organization has…". Answers could be provided on a 5-point Likert scale ranging from 1 = 'strongly decreased' to 5 = 'strongly increased'. **Sickness Absence** was measured by asking respondents the percentage of sickness absence during the previous year (2009), excluding pregnancy leave. The mean percentage was 3.51% (SD = 3.67). **Employee Turnover** (M = 5.06%, SD = 13.35) was measured by asking the number of contracts that were voluntarily ended by employees themselves during the last year (2009; Gardner, Wright, & Moynihan, 2011). This number was divided by the total number of employees with a permanent contract in the organization to obtain the percentage of employee turnover. The moderator **employee age** was measured by indicating the percentage of employees older than 45 years in the organization (M = 39.6%, SD = 24.78). 45 years is generally considered to be the age after which employees are regarded as older workers, and from that age experience increasing problems with their (physical) abilities to do their jobs (Kooij, De Lange, Jansen, & Dikkers, 2008; Ng & Feldman, 2008).

Control Variables

In the analyses, we controlled for a range of factors that could possibly influence the outcome variables (see also Gardner et al., 2011; Gong et al., 2009; Ngo et al., 2009). Education, which may positively influence organizational performance, was measured (using dummy coding) by the percentage of employees who had lower education (M = 30.84%, SD = 31.09), vocational education (M = 40.46, SD = 28.54), and higher education (M = 28.73, SD = 31.42). Gender was measured as the percentage of male employees (M = 58.38, SD =

30.67). Moreover, we controlled for the percentage of employees with a temporary contract (M = 10.49, SD = 14.78) and the percentage of employees working part-time (M = 37.89, SD = 31.74) in order to rule out alternative explanations, such as that turnover rates are influenced by the percentage of employees with a temporary contract. Furthermore, we controlled for sector (using dummy coding; Industry/Agricultural: 26%; Service: 47%; Government: 4%; Education: 9%; Health care: 8%; other sectors: 6%). Finally, we controlled for organization size, since larger firms may have more resources and market power (Gong et al., 2009). Organization size (M = 162, SD = 546.98) was measured by the number of employees working for the organization. For multinational organizations, respondents indicated the number of employees within the Netherlands.

Analysis

The hypotheses were tested using moderated hierarchical regression analyses. Independent variables were standardized before interactions were calculated (Aiken & West, 1991). In the first step, control variables were added to the model (not shown in table). For categorical variables, we created dummy variables and included these in the analyses. For education, percentage of employees with lower education was the reference group, and for sector we used industry/agricultural as reference group. Subsequently, main effects were added in the second step and in the final step the interactions. We included non-hypothesized main effects (e.g., of work schedule and financial practices on performance growth), as well as non-hypothesized interactions to rule out alternative explanations. Significant interactions were plotted with slopes for one standard deviation below and above the mean of the moderator (Aiken & West, 1991). Table 1 shows the correlations among the variables.

Insert Table 1 about here

RESULTS

Hypotheses 1 predicted that availability and use of development practices are positively related to performance growth and negatively related to employee turnover. Table 2 shows the results of the hierarchical regression analyses. Both availability (β = .083, p<.001) and use (β = .062, p<.01) of development practices were positively related to performance growth. Hence hypothesis 1a was fully supported. Both availability and use of development practices for employees are related to stronger performance growth of the organization. Moreover, availability of development practices was not related to employee turnover (β = -.007, *ns*), while use of development practices was negatively related to employee turnover (β = -.052, p<.05). Hence, hypothesis 1b was partially supported.

Hypotheses 2 predicted that availability and use of work schedule practices are negatively related to sickness absence. Availability (β = -.048, p<.05) and use (β = -.049, p<.05) of work schedule practices were both negatively related to sickness absence, indicating lower sickness absence in organizations where both work schedule are available and used. Hence hypothesis 2 was fully supported. We also found a non-hypothesized relationship of use of work schedule practices with performance growth (β = .064, p<.01), indicating that organizations with more employees using work schedule practices obtained stronger performance growth.

Hypotheses 3 predicted that availability and use of financial practices are negatively related to employee turnover. This hypothesis was partially supported; availability (β = -.058, p<.05) and use (β = .057, p<.05) were related to employee turnover. However, the directions of the relationships were opposite; availability of individualized pay practices was, in line with the hypothesis, negatively related while use of individualized pay practices is positively related to employee turnover. We also found a non-hypothesized negative relationship of availability of individualized pay practices with sickness absence (β = -.085, p<.001).

Insert Table 2 about here

Hypothesis 4 predicted that employee age moderates the relation between use of development practices and performance growth and employee turnover. Table 2 also shows the results of the moderation analyses. Hypothesis 4a was rejected; the interaction was not significantly related to performance growth (β = -.017, *ns*). Age did moderate the relation between use of development practices and employee turnover (β = .040, p < .05). Figure 1 shows the interaction between employee age and development practices. The relation was non-significant for organizations with high percentage of older workers (B = -.176, *ns*), while the relation was negative for low percentage of older workers organizations (B = -1.184, p < .01). This supports hypothesis 4b, and indicates that use of development practices decreases employee turnover in organizations with many younger workers.

We also found a significant non-hypothesized interaction between age and use of development practices in relation to sickness absence (β = .040, p<.05). Figure 2 shows the interaction. The relation is non-significant for organizations with a low percentage of older workers (B = -.042, *ns*), while the relation was positive for organizations with high percentage of older workers (B = .220, p<.05). Hence, sickness absence increased when organizations with many older workers use development practices.

Hypothesis 5 predicted that employee age moderates the relation between use of work schedule practices and sickness absence. Age indeed moderated this relationship (β = -.068, p<.001). Figure 3 shows the interaction pattern. In line with the hypothesis, the relation was negative for organizations with a high percentage of older workers (unstandardized coefficient B = -.394, p<.001) while it was non-significant for organizations with few older workers (B = .064, *ns*). Hypothesis 5 is supported. We also found that the interaction between age and use of work schedule practices in relation to employee turnover was significant (β = -.039, p < .05). The interaction pattern is shown in Figure 4. The relation was non-significant for organizations with many older workers (B = -.063, *ns*), and the relation was positive for

organizations with many younger workers (B = .939, $p < .05$). Hence, turnover increased when organizations with many younger workers used many work schedule practices.

Finally, hypothesis 6 predicted that employee age moderates the relation between use of individualized pay practices and employee turnover. The interaction was significant (β = .039, $p < .05$). Figure 5 shows the interaction. For organizations with low percentage of older workers, the relation was not significant (B = .226, *ns*), while the relation was positive for organizations with many older workers (B = 1.256, $p<.01$). Thus, hypothesis 6 was rejected; the relation was not stronger for organizations with many younger workers but for organizations with many older workers.

Insert Figures 1-5 about here

DISCUSSION

This study investigated whether the availability and use of individualized HRM practices in organizations contribute to organizational performance, as well as whether these relations are moderated by employee age. Results of a large-scale employer survey among more than 4,500 organizations in the Netherlands show that depending on the type of performance indicator, individualized HRM indeed contributes to higher organizational performance, supporting our main hypothesis of the study. Availability and use of individualized development HRM positively related to performance growth, and use of work-schedule HRM also related positively to performance growth. Moreover, sickness absence is lower in organizations that have individualized work schedules and pay practices available and use individualized work schedules, while employee turnover is reduced through availability of individualized pay practices and use of development HRM, while it increased when organizations actually use individualized pay practices.

These findings largely support signaling theory in the context of individualized HRM (Casper & Harris, 2008; Rynes et al., 1991), such that availability of individualization can act

as an indicator for employees that the organization values them as members and hence their contributions to the organization increase. When individualized development practices are available, employees put more effort into their jobs, and organizational performance will grow. Moreover, availability of individualized pay practices reduces employee turnover and sickness absence. This latter finding may seem as a somewhat counter-intuitive result. It may be that the availability of individualized pay is dependent upon absence, and that employees who want to negotiate pay arrangements are less likely to be absent, such that they are rewarded for attendance at work. Moreover, it may be that the opportunity to make individualized agreements about pay is also valued by employees, because it functions as an indicator of their value for the organization.

Moreover, the social exchange perspective on individualized HRM is also supported; when managers actually use individualized HRM, organizational performance increases. In line with our hypotheses, we found that use of individualized development practices are important for productivity because development enhances employees' skills to do the job and hence are better able to perform (Appelbaum et al., 2000; Hornung et al., 2009). Moreover, use of individualized work schedules ensure that employees can obtain a healthy work-life balance through balancing demands from their work and their private life in a more sustainable manner (Baltes et al., 1999). Consequently, organizations that use individualized work schedules have lower sickness absence. Moreover, we also found that performance increases when organizations use individualized work schedules. This indicates that a more personalized working schedule is not only related to lower sickness absence and thus retains employee health, but also to higher performance. This provides some additional evidence for the question whether flexible work arrangements actually lead to organizational performance (De Menezes & Kelliher, 2011). The current study results suggest this may be the case, but

especially when managers use the opportunity to individually negotiate flexible work arrangements with employees.

Finally, in contrast to our hypothesis, use of individualized pay practices was related to higher employee turnover. It might be the case that even though individualized pay practices are available and hence send out a signal that the organization values the employees, it is the star performers in the organization who actually get those deals (Rousseau, 2005). Because star performers in the organization not only have more bargaining power to negotiate about their pay, but also may be better in negotiating a new, possibly even better paid job, this might explain the positive relationship between use of individualized pay arrangements and turnover. In other words, employee turnover may not be associated with the use of pay arrangements per se, but the high performing employees who negotiate pay arrangements will more easily find a new job. This may also be some indication of the grey area between individualized HRM and cronyism (Brick, Palmon, & Wald, 2006). For instance, there is ample research that shows that high-quality relationships with supervisors are positively related to receiving special arrangements (e.g., Anand et al., 2010; Rosen et al., 2011). Thus, it is likely that when supervisors like their subordinates, they are more inclined to grant individual deal making, hence giving rise to favoritism and cronyism.

Employee Age and Effectiveness of Individualized HRM

We have argued that the relationships of individualized HRM with outcomes differ among younger and older workers. In line with lifespan theory of aging (Baltes et al., 1999; Freund, 2006), monetary rewards and growth are important motivators for younger workers, and individualized development indeed decreased turnover among organizations with many younger workers. However, at the same time, development may also become a burden for older workers, and hence leads to higher sickness absence. Therefore, the claim that individualized development enhances performance (e.g., Anand et al., 2010) must be nuanced

because development also means an investment of time and energy by the employee and hence, may be associated with higher absence for those employees who suffer physical losses, such as older workers (Bal et al., 2012). Our findings are in line with those of Kooij et al.'s (2013), who showed that development-oriented HRM enhanced older worker's performance, but at the same time was detrimental to their well-being. Moreover, individualized development may be costly for organizations, and hence it is important for organization to calculate costs and benefits of individualized HRM.

The use of individualized pay increased turnover in organizations with many older workers, while it made no differences in organizations with many younger workers. Drawing from the notion that financial inducements are more likely to be negotiated by star performers (Rosen et al., 2011; Rousseau, 2005), it may be that especially in organizations with many older workers, they are the star performers who can easier find a new job. Moreover, the absence of a relationship between individualized pay and performance growth also indicates that the role of reciprocity in the negotiation of financial deals does not have to be targeted at higher performance, but to other outcomes, such as retention (Rousseau et al., 2006). However, individualized pay can also exist because of cronyism. This 'dark side' of individualized HRM can for instance found in research that showed existence of cronyism in the excess compensation of higher managers (Brick et al., 2006; Lai et al., 2009).

We found that individualized work schedules may be particularly effective in decreasing sickness absence in organizations with many older workers, while in organizations with many younger workers, turnover increased when individualized work schedules were used. Availability and use of individualized work schedules signal to employees that they have the opportunity to diminish workload, which is especially relevant for older workers who are facing difficulties with coping with their losses while retaining energy and motivation at work (Kanfer & Ackerman, 2004). For younger workers, however, this may also be a signal

that full investment in work is less important, and hence they might look for organizations where they can invest fully into their work and career. As a consequence, turnover increases for these organizations.

Theoretical and Research Implications

This study has several implications for theory and future research. First, the study shows that individualized HRM contributes to organizational performance. This is important, since an increasing amount of organizations has introduced individual negotiations with employees about their work arrangements (Bal et al., 2012). This study shows that it is related to several indicators of organizational performance. However, the relationships are not straightforward; the extent to which individualized HRM practices enhance performance depends upon both the type of HRM practice and the type of performance indicator. Hence, when researchers investigate the effects of individualized HRM on outcomes, a contingency approach is necessary. This study, therefore, contributes to the debate in the HR-literature on the value of high performance HR systems in relation to a contingency approach to HRM (e.g., Kaufman & Miller, 2011; Kehoe & Wright, 2013; Purcell, 1999). This debate concerns the question whether *more* HRM always leads to higher organizational performance. This notion is challenged in the current study that clearly shows that a contingency approach is necessary to explain the relations of HR-interventions, such as the availability and use of individualized HRM, with organizational performance. Hence, only when the type of individualized HRM fits the needs of workers, organizational performance can be enhanced.

Moreover, in line with research on HRM (Arthur & Boyles, 2007) it is also important to distinguish the leeway managers have in negotiating individualized agreements with employees, and the actual use of individualized HRM in organizations by the managers. While the former may be an indication for employees that they can, when necessary and needed, negotiate individual agreements, the latter provides an answer to the question of

individualized HRM actually leads to higher performance, and bring about what they have been introduced for in organizations (Rousseau, 2005). As the current study has shown, the effects may be different, and even opposite in explaining outcomes.

Hence, while social exchange theory and the norm of reciprocity have primarily been used to explain outcomes, it is not self-evident that individualized HRM will always be reciprocated with higher performance or retention, regardless of the context. We have looked at the role of employee age, and found that indeed relationships can differ among organizations with few and many older workers. Since employee age is an important contextual factor in determining the utility of individualization (Bal et al., 2010, 2012; Kooij et al., 2011), it is important to take into account the age of an employee when investigating the effects of individualized HRM. However, it is also important for future research to investigate the age-related changes that explain why older workers react differently from younger workers (Kooij et al., 2008). For instance, those older employees focusing on selection of the tasks they want to carry out in their work may be particularly responsive to individualized work schedules, and hence it is the changes in task preference that really explains why older workers react differently.

Another avenue for future research is to ascertain which employees are more likely to have needs for individualized HRM and start proactively negotiating those arrangements (Hornung et al., 2010). It has been suggested that for instance, individualized pay arrangements are only negotiated with star performers, while individualized work schedules are granted to low performers (Rousseau, 2005). Hence, the relationships between negotiated deals with outcomes may be also moderated by employee status, and the extent to which individualized HRM is applied by organizations because employees deserve it because of their contributions made to the organization, or because employees have to cope with high demands, and look for alternative ways to cope with these demands.

Strengths and Limitations

The current study has a number of strengths. First of all, this is the very first study that focuses on the employer perspective in individualized HRM. Through a large-scale employer survey of more than 4,500 organizations in the Netherlands, we were able to ascertain how individualized HRM practices relate to various measures of organizational performance. Secondly, this study contributes through not only looking at main effects of individualized HRM, but to also take the organizational characteristics into account (Kaufman & Miller, 2011). The extent to which organizations consist of primarily younger or older workers determines the extent to which individualized HRM relates to organizational performance.

However, there are also some limitations to the study. First, since the study was cross-sectional, we cannot rule out the issue of reversed causality. Theoretically, it could be that high performing organizations may start to offer and use more individual deals, and especially when it concerns financial and developmental agreements, since these types of individualized HRM may be costly for organizations. However, previous research has shown that individualization of HRM is a consequence of societal changes, rather than performance of organizations (De Leede et al., 2004, 2007). Moreover, the study was based on self-reports of organizational representatives. We were not able to have objective performance measures, because existing measures (such as profits or Return on Investment) are not applicable to all of the organizations in the study, since we included both profit and nonprofit organizations. Therefore, we deemed it appropriate to use self-report measures of performance. Moreover, since the current study was part of a larger study, and several other scales were included in the survey, it was unlikely that participants were aware of the purposes of the current study. Moreover, due to this study being part of a larger study, short scales were used to measure our instruments. Even though these were based on previous research (Hornung et al., 2008), and

can be valid and reliable (Nagy, 2002), future research should further ascertain the validity and reliability of these measures.

Finally, the effects were not very strong. However, the results may have important implications for organizations: if 1% of the variance in performance, sickness absence or turnover can be explained through individualized HRM, this may have important and strong effects for organizations and HR-managers since it may reflect a substantial monetary outcome for the organization. Hence, it is imperative that organizations are aware of the costs and benefits of taking an individual approach to HRM, but at the same time, organizations should also realize the value of an individual approach to HRM in itself, without only taking a utilitarian perspective on treating people in organizations (Tasking & Devos, 2005).

Practical Implications

The study clearly shows that when organizations make use of individualized HRM, this is associated with higher organizational performance, including stronger performance growth and lower sickness absence and turnover. Thus, even in times of the economic recession, which was the reality in 2010 in the Netherlands when the study was conducted, performance could grow when organizations offered the opportunity to negotiate and actually used individualized HRM with their employees. Especially with regards to the high possible costs of absence and turnover (TNO, 2010), it has become imperative for organizations to keep their employees healthy and to retain them.

However, a simple implementation of individualization in organizations does not automatically lead to higher performance. Managers should therefore be aware of the effects that specific types of agreements may have. Based on this, managers can take an individual approach and ascertain the goal of a negotiated agreement for both employee and organization. For instance, when organization aim to decrease sickness absence, they are best to start negotiate individualized work schedules with employees, while a similar case could be

made for the relation of individualized development with performance, and individual financial agreements with retention. Moreover, it is necessary for organizations to train their line managers in negotiating individual agreements with employees, since traditionally managers are educated and used to treat employees equally rather than treating employees individually. Hence, line managers need to be aware of the individual needs of employees, and yet ensure fair treatment of their subordinates compared to coworkers (Lai et al., 2009).

Finally, organizations should also be aware that individualized treatment may have a different utility depending on the age of an employee, and that younger workers tend to value economic and development inducements the most, while older workers have higher needs for flexibility (Bal et al., 2010).

Conclusion

The current study investigated among more than 4,500 Dutch companies whether individualized HRM contributes to organizational performance, and which types of individualized HRM are beneficial for younger workers and which are beneficial for older workers. The study shows that individualized HRM is differentially related to performance indicators, and that these relations are moderated by employee age; depending on the utility of the individualized HR practice for younger or older workers, relations are stronger with outcomes. We found that individualized development and pay arrangements were particularly important for organizations with many younger workers to increase organizational performance, while individualized work schedules are important in enhancing organizational performance in organizations with many older workers.

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Table 1: Correlations of the variables under study (N = 4591).

	Variables	Mean	SD	1	2	3	4	5	6	7	8
Education											
1	- % Vocational Education	40.46	28.54	--							
2	- % Higher Education	28.73	31.42	-.45**	--						
3	Gender (% men)	58.38	30.67	-.06**	-.19**	--					
4	% Temporary Employment	10.49	14.78	.02	-.04**	-.12**	--				
5	% Part time workers	37.89	31.74	.05**	.12**	-.70**	.20**	--			
Sector											
6	- Service	.46	--	.09**	-.04**	.07**	.16**	-.07**	--		
7	- Government	.04	--	.01	.05**	.02	-.07**	-.03*	-.18**	--	
8	- Education	.09	--	-.17**	.37**	-.20**	-.02	.19**	-.28**	-.06**	--
9	- Health care	.08	--	.09**	.06**	-.42**	.00	.38**	-.30**	-.06**	-.09**
10	- Other sectors	.06	--	-.02	.02	-.15**	.04**	.15**	-.23**	-.05**	-.07**
11	Organization size (no. employees)	161.63	546.98	-.02	.05**	-.06**	-.04*	.06**	-.06**	.08**	.03*
Availability of Individualized HRM											
12	- Development	3.61	.80	.02	.14**	.023	-.02	-.03	.02	.02	.05**
13	- Work Schedule	3.23	1.02	.01	.13**	-.10**	.06**	.15**	.08**	.06**	-.08**
14	- Pay Arrangements	2.83	1.09	.05**	-.01	.18**	.00	-.19**	.17**	-.12**	-.18**
Use of Individualized HRM											
15	- Development	3.26	.88	-.01	.17**	-.03*	.00	.01	.02	.04*	.07**
16	- Work Schedule	2.97	1.02	.01	.07**	-.09**	.10**	.13**	.09**	.02	-.08**
17	- Pay Arrangements	2.60	1.07	.04*	.01	.17**	.02	-.19**	.16**	-.09**	-.17**
18	% of Employees > 45 years (Age)	39.64	24.78	-.07**	.05**	-.00	-.21**	.04**	-.23**	.11**	.16**
19	Performance Growth	3.46	.52	.01	.11**	-.10**	.09**	.06**	.04**	-.01	.02
20	Sickness Absence	3.51	3.67	-.08**	-.05**	-.04*	-.02	.04*	-.17**	.07**	.05**
21	Employee Turnover	5.06	13.35	.04**	-.03*	-.07**	.25**	.09**	.12**	-.04**	-.03*

Note. * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 1 continued: Correlations of the variables under study (N = 4591).

	Variables	9	10	11	12	13	14	15	16	17	18	19	20	21
Education														
1	- % Vocational Education													
2	- % Higher Education													
3	Gender (% men)													
4	% Temporary Employment													
5	% Part time workers													
Sector														
6	- Service													
7	- Government													
8	- Education													
9	- Health care	--												
10	- Other sectors	-.08**	--											
11	Organization size (no. employees)	.14**	-.02	--										
Availability of Individualized HRM														
12	- Development	-.13**	-.05**	-.09**	--									
13	- Work Schedule	.03*	.06**	.00	.28**	--								
14	- Pay Arrangements	-.13**	-.05**	-.09**	.26**	.38**	--							
Use of Individualized HRM														
15	- Development	.03	-.02	.03*	.61**	.18**	.14**	--						
16	- Work Schedule	.06**	.06**	.02	.22**	.65**	.26**	.35**	--					
17	- Pay Arrangements	-.12**	-.04**	-.04**	.22**	.31**	.72**	.29**	.40**	--				
18	% of Employees > 45 years (Age)	.04**	.03*	.11**	-.05**	-.04**	-.15**	-.03*	-.05**	-.14**	--			
19	Performance Growth	.06**	-.01	.02	.15**	.13**	.06**	.16**	.15**	.08**	-.09**	--		
20	Sickness Absence	.11**	.01	.14**	-.01	-.11**	-.16**	.01	-.09**	-.12**	.14**	-.02	--	
21	Employee Turnover	-.01	-.01	-.04**	-.04**	.01	-.01	-.02	.05**	.02	-.17**	.01	-.02	--

Table 2: Results of Moderated Regression Analyses

	Performance Growth		Sickness Absence		Employee Turnover	
Variables	β	β	β	β	β	β
Control Variables						
Education						
- Vocational Education	-.005	-.004	-.135***	-.132***	.025	.026
- Higher Education	.058**	.057**	-.143***	-.140***	-.012	-.007
Gender (% men)	-.117***	-.118***	-.040	-.042	.024	.024
% Temporary Employment	.076***	.076***	.008	.010	.201***	.202***
% Part time workers	-.037	-.038	-.019	-.020	.087***	.086***
Sector						
- Service	-.001	-.002	-.069**	-.068**	.051*	.053*
- Government	-.019	-.019	.044	.044*	-.001	.000
- Education	-.011	-.012	.021	.016	.014	.013
- Health care	.020	.019	.071**	.071**	-.008	-.005
- Other sectors	-.038*	-.038*	.007	.008	-.010	-.007
Organization size (no. employees)	.004	.004	.094***	.094***	-.015	-.015
Availability of Individualized HRM						
- Development	.083***	.083***	.034	.033	-.007	-.007
- Work Schedule	.009	.009	-.046	-.048*	-.029	-.032
- Pay Arrangements	.022	.022	-.087***	-.085***	-.060*	-.058*
Use of Individualized HRM						
- Development	.061**	.062**	.029	.026	-.051*	-.052*
- Work Schedule	.063**	.064**	-.053*	-.049*	.031	.034
- Pay Arrangements	-.018	-.018	.017	.018	.058*	.057*
% of Employees > 45 years (Age)	-.061***	-.061***	.112***	.122***	-.132***	-.128***
Interaction Effects						
Use of Individualized HRM * age						
- Development * Age		-.017		.040*		.040*
- Work Schedule * Age		-.005		-.068***		-.039*
- Pay Arrangements * Age		-.009		.003		.039*
F	12.97***	10.98***	19.75***	17.71***	20.27***	17.99***
ΔF	8.07***[1]	.70	11.79***[1]	5.09**	17.67***[1]	3.96**
R^2	.06	.06	.09	.10	.09	.10
ΔR^2	.01	.00	.01	.01	.02	.01

Note: * $p < .05$, ** $p < .01$, *** $p < .001$. [1] = comparison to model with control variables (not shown in Table).

Figure Caption

Figure 1: the interaction between use of development practices and percentage of older workers in relation to turnover.

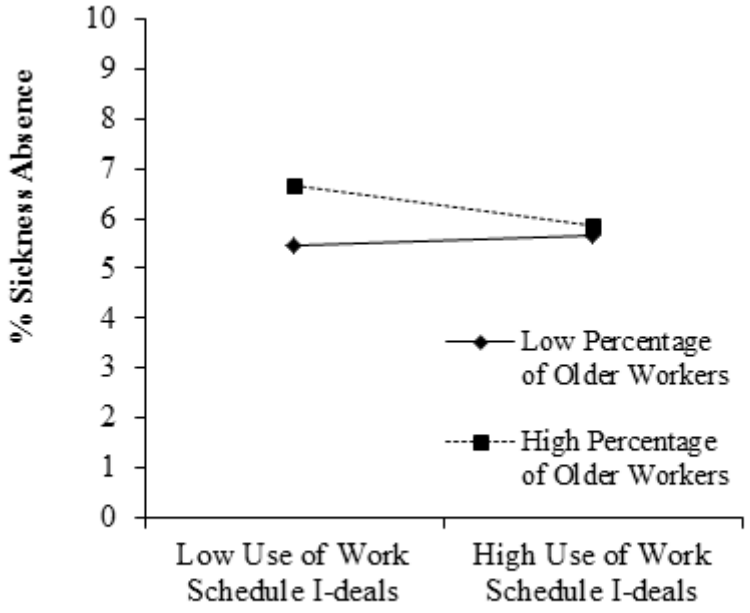

Figure 2: the interaction between use of development practices and percentage of older workers in relation to sickness absence.

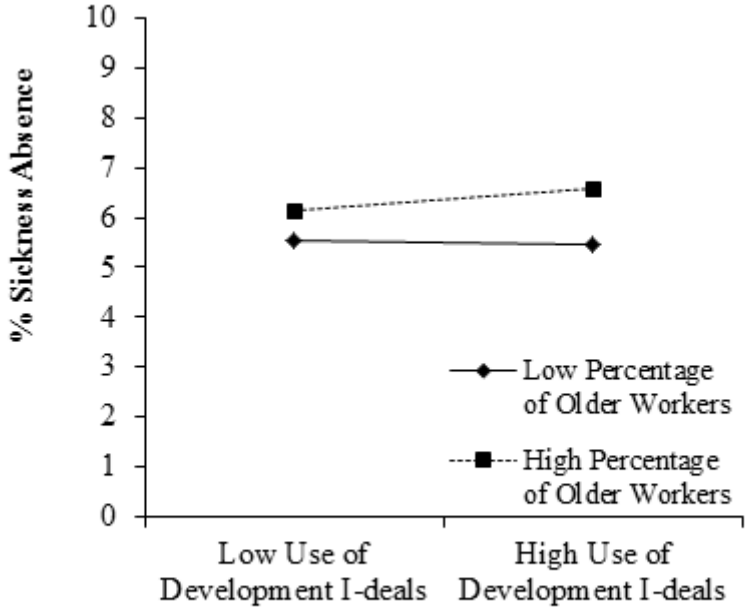

Figure 3: the interaction between use of work schedule practices and percentage of older workers in relation to sickness absence.

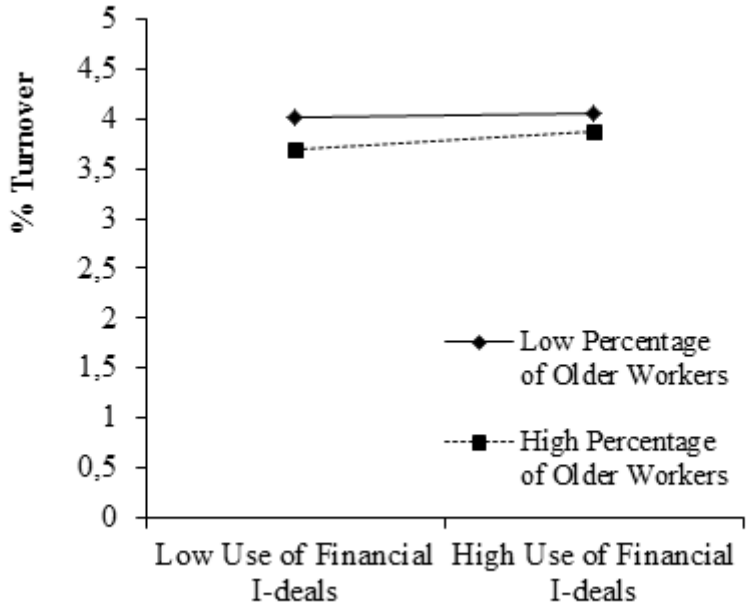

Figure 4: the interaction between use of work schedule practices and percentage of older workers in relation to turnover.

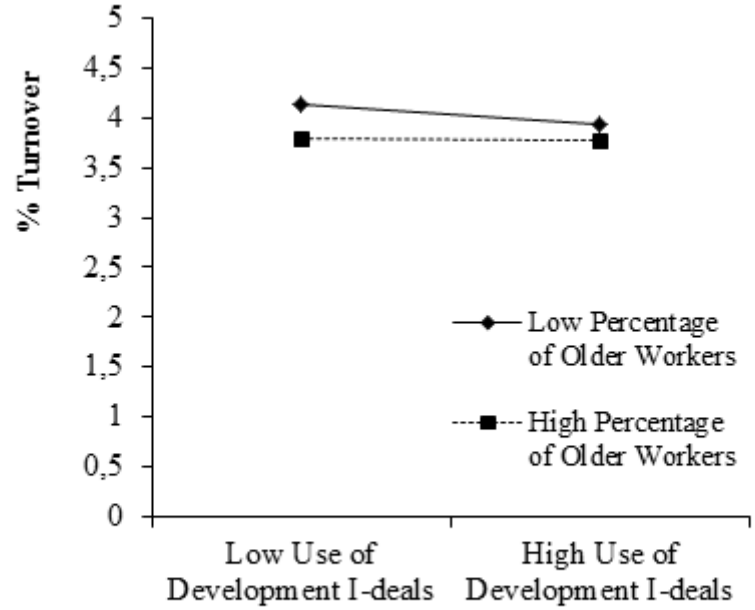

Figure 5: the interaction between use of pay practices and percentage of older workers in relation to turnover.